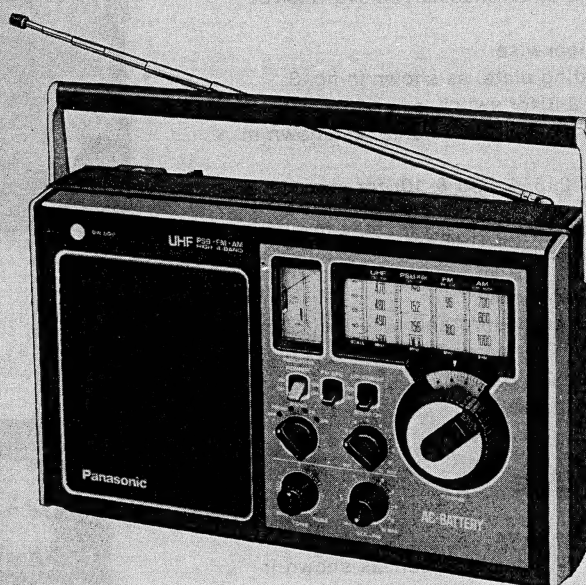


Service Manual

UHF-PSB-FM-AM 4-BAND
PORTABLE RADIO

Radio
RF-1115/©



■ SPECIFICATIONS

Frequency Range: UHF 450~512 MHz
PSB 136~174 MHz
FM 88~108 MHz
AM 525~1605 kHz

Intermediate Frequency: FM (UHF, PSB) 10.7 MHz
AM 455 kHz

Sensitivity: UHF $2\mu\text{V}$ for S/N 6 db
PSB $2\mu\text{V}$ for S/N 6 db
FM $1\mu\text{V}$ for S/N 6 db
AM $30\mu\text{V/m}$ for 50mW Output

Power Source: AC 120V 60 Hz
6V (Four "C" Size Flashlight

Batteries: (Panasonic UM-2 or equivalent)
7W at 120V (AC Only)

Power Consumption: 7W at 120V (AC Only)

Speaker: 10 cm (4") PM Dynamic Speaker

Dimensions: $10\frac{1}{8}"$ (Wide) $\times 6\frac{1}{8}"$ (High) $\times 3\frac{1}{8}"$ (Deep)
(273 \times 173 \times 86 mm)

Weight: 5 lb. 1 oz. (2.27 kg) with batteries

Impedance: Speaker16 Ω
Earphone Jack8 Ω
Recording Out Jack20k Ω

Weights and dimensions shown are approximate.
(Les poids et dimensions mentionnés sont approximatifs.)
Specifications are subject to change without notice for further improvement.

Panasonic®

■ TO REMOVE CHASSIS

1. Open the battery cover.
2. Remove the six (6) screws (nos. 1~6) for the cabinet back cover, as shown in fig. 1.
3. Remove cabinet back cover.
4. Pull out sockets from chassis.
5. Remove the three (3) red screws (nos. 1~3) for the chassis, as shown in fig. 2.
6. Unsolder lead wire (for the speaker) from chassis.
7. To remove chassis completely unsolder lead wires from cabinet.
8. To reassemble, reverse the above procedure.

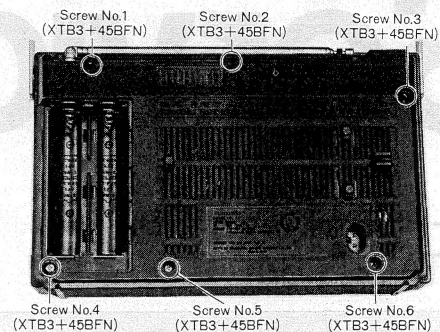


Fig. 1

■ TO REMOVE DIAL DRIVE ASSEMBLY

1. Remove chassis from cabinet. (Refer to chassis removal instruction.)
2. Turn tuning shaft fulley counter-clockwise.
3. Remove band indicator and indicating plate, as shown in fig. 3.
4. Remove the two (2) screws (nos. 2 & 3) for switch, as shown in fig. 3.
5. Remove the four (4) nuts (nos. 1, 4, 5 & 6) for volume, as shown in fig. 3.
6. Remove the six (6) screws (nos. 2, 3, 4, 5, 8 & 10) for dial drive assembly, as shown in fig. 4.
7. Loosen the two (2) screws (nos. 7 & 9) for UHF tuner, as shown in fig. 4.
8. Remove dial drive assembly from chassis.
9. To reassemble, reverse the above procedure and note the followings:
 1. Set variable capacitors to maximum capacity.
 2. Turn tuning shaft fulley counter-clockwise.

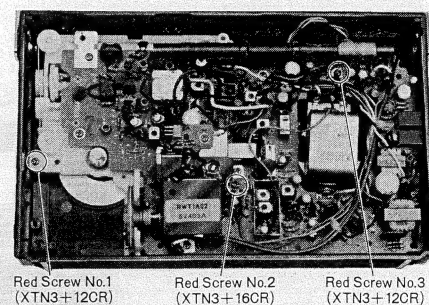


Fig. 2

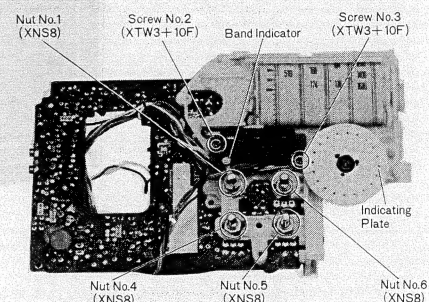


Fig. 3

■ DIAL SCALE INSTALLATION GUIDE

1. Turn tuning shaft fulley counter-clockwise.
2. Loosen the two (2) screws (nos. 1 & 6) for the gear, as shown in fig. 4.
3. Remove spring for the rollers, as shown in fig. 5.
4. Insert the protuberance of gear in the catch no. 1 of roller no. 2, as shown in fig. 6.
5. Turn the gear one turn in the direction of arrow, then attach the stopper to the catch no. 2 on the roller no. 2, as shown in fig. 6.
6. Set roller no. 1 at the position as shown in fig. 5.
7. Wind the dial scale onto the roller No. 2, and set it to the dial drive assembly.
8. Set spring at the position as shown in fig. 5.
9. Hook the dial scale on the boss of the roller no. 1, as shown in fig. 5.
10. Confirm that the stopper of the gear should be located at the position, as shown in fig. 5.
11. Set start point of dial scale at the position, as shown in fig. 7.
12. Tighten the two (2) screws (nos. 1 & 6) for the gear, as shown in fig. 4.

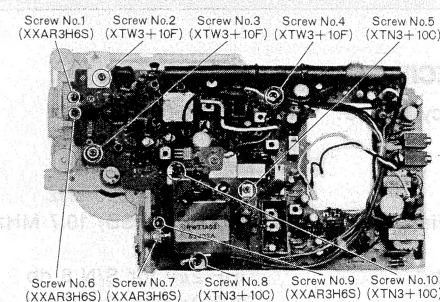


Fig. 4

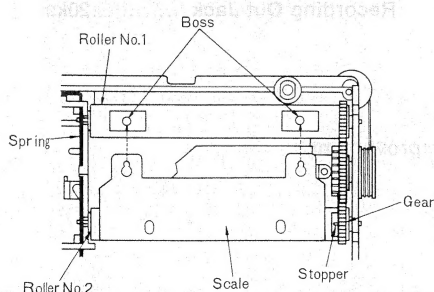


Fig. 5

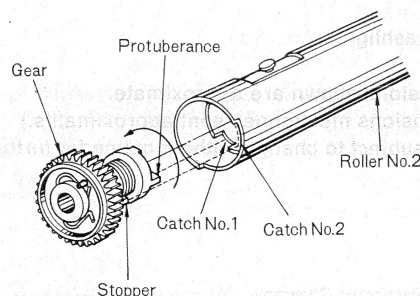


Fig. 6

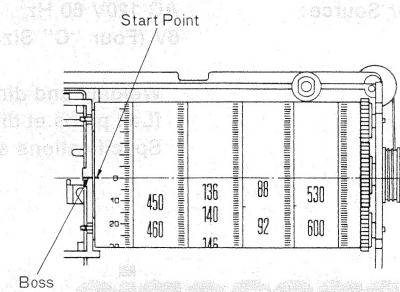


Fig. 7

■ DIAL CORD INSTALLATION GUIDE

1. Remove dial drive assembly. (Refer to dial assembly removal instruction.)
2. Remove dial drum stopper, as shown in fig. 8.
3. Set each dial drum at the position, as shown in fig. 8.
4. Insert awl into the holes for fixing dial drums, as shown in fig. 8.
5. Cord length is 140 cm (55 $\frac{1}{8}$ "').
6. Arrows (1~13) indicate correct order and direction of cord installation.
7. Cement cord ends.
8. Mount dial drive assembly to chassis. (Refer to dial drive assembly removal instruction.)
9. Turn tuning shaft fulley counter-clockwise.
10. Mount dial drum stopper at the position, as shown in fig. 8.
11. Set start point of dial scale to boss of dial drive assembly. (Refer to dial scale installation guide.)

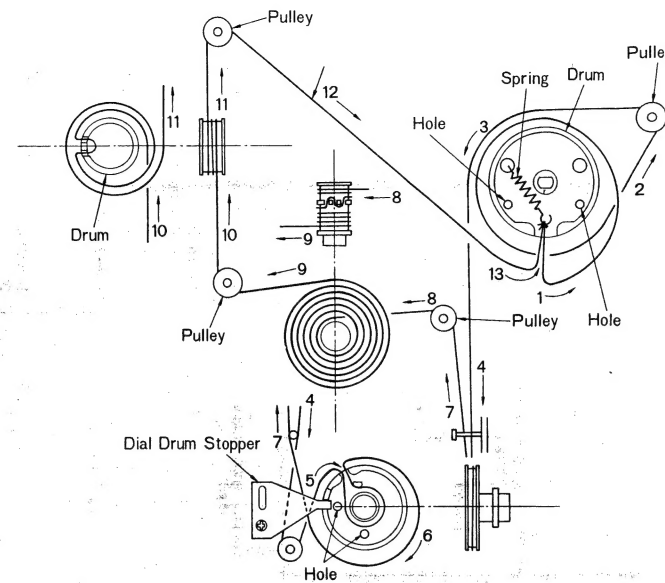


Fig. 8

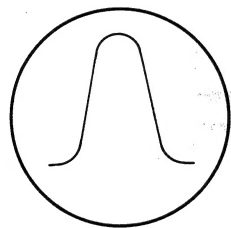


Fig. 9

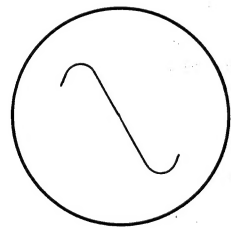


Fig. 10

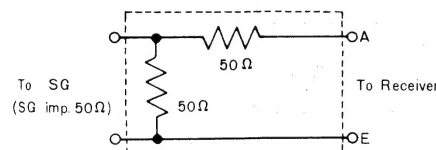


Fig. 11 FM Dummy Antenna

■ ALIGNMENT POINT

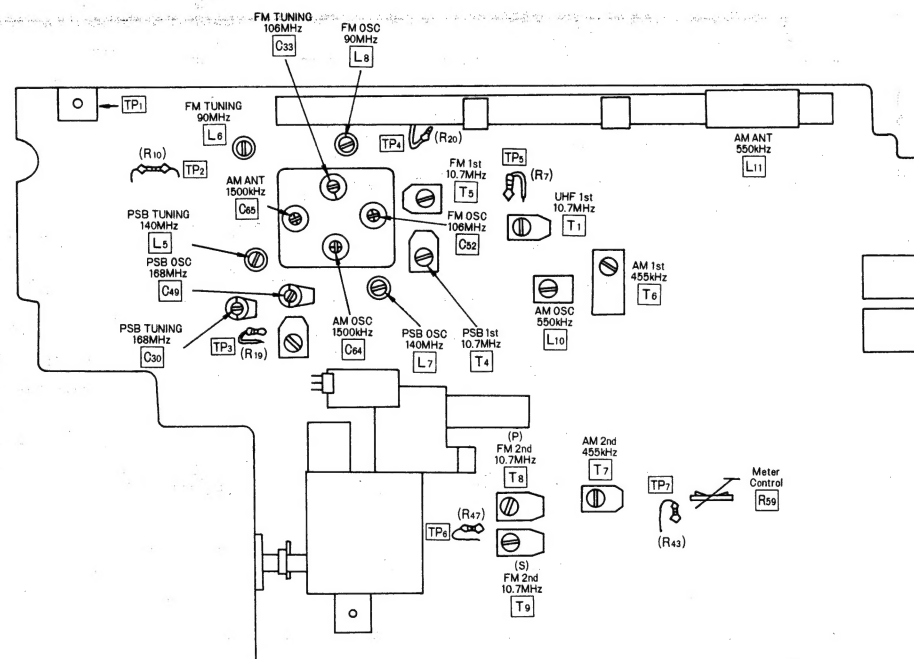
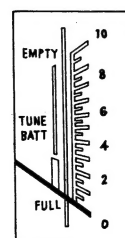


Fig. 12

■ TUNE/BATT METER ADJUSTMENT

- | | |
|--|---|
| <p>1. RADIO RECEIVER SETTING</p> <ul style="list-style-type: none"> • Set band switch to AM. • Set volume control to minimum. • Set power source voltage to 6 volts DC. | <p>2. REMARKS</p> <ul style="list-style-type: none"> • Adjust R₅₉ so that the pointer of meter stays as shown in figure at right. |
|--|---|



■ ALIGNMENT INSTRUCTIONS

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Notes:

1. Set volume control to maximum.
2. Set tone control to treble.
3. Set band selector switch to AM, FM, PSB or UHF.
5. Set AFC switch to OFF. (FM-IF & RF).
6. Set power source voltage to 6 volts DC.
7. Set squelch control to OFF.

SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING [DISTANCE]	INDICATOR (VTVM or SCOPE)	ADJUSTMENT	REMARKS
CONNECTIONS	FREQUENCY				
AM ALIGNMENT					
1) Fashion loop of several turns of wire and radiate signal into loop of receiver.	455 kHz 30% Mod. with 400 Hz.	Point of non-interference. (on/about 600 kHz).	Output meter across voice coil.	T ₆ (1st IFT) T ₇ (2nd IFT)	Adjust for maximum output.
AM-RF ALIGNMENT					
2) "	550 kHz	550 kHz [Fig. 13]	"	L ₁₀ (OSC Coil) (* 1) L ₁₁ (ANT Coil)	Adjust for maximum output. Adjust L ₁₁ by moving coil bobbin along ferrite core.
3) "	1500 kHz	1500 kHz [Fig. 14]	"	C ₆₄ (OSC Trimmer) C ₆₅ (ANT Trimmer)	Adjust for maximum output. Repeat steps (2) and (3).
(*) Cement antenna bobbin with wax after completing alignment.					
FM-IF ALIGNMENT					
4) High side thru. 0.001 μF to point TP ₄ . Negative side to earth.	10.7 MHz (400 kHz SWP.)	Point of non-interference. (on/about 90 MHz).	Connect vert. amp. of scope to point TP ₈ (*). Negative side to earth.	T ₅ (FM 1st IFT) T ₈ (FM 2nd IFT) (Primary)	Adjust for maximum amplitude. (Refer to fig. 9).
PSB-IF ALIGNMENT					
5) High side thru. 0.001 μF to point TP ₃ . Negative side to earth.	"	"	Connect vert. amp. of scope to point TP ₆ . Negative side to earth.	T ₄ (PSB 1st IFT)	Adjust for maximum amplitude. (Refer to fig. 9).
UHF-IF ALIGNMENT					
6) High side thru. 0.001 μF to point TP ₅ . Negative side to earth.	"	"	Connect vert. amp. of scope to point TP ₆ . Negative side to earth.	T ₁ (UHF 1st IFT)	Adjust for maximum amplitude. (Refer to fig. 9).
FM-IF ALIGNMENT					
7) High side thru. 0.001 μF to point TP ₄ . Negative side to earth.	"	"	Connect vert. amp. of scope to point TP ₆ . Negative side to earth.	T ₉ (FM 2nd IFT) (Secondary)	Adjust for maximum amplitude. (Refer to fig. 10).
FM-RF ALIGNMENT					
8) Connect to point TP ₁ through FM dummy antenna. Negative side to earth. (Refer to fig. 11).	90 MHz	90 MHz [Fig. 15]	Output meter across voice coil.	L ₈ (FM OSC Coil) L ₆ (FM Tuning Coil)	(*) Adjust for maximum output.
9) "	106 MHz	106 MHz [Fig. 16]	"	C ₅₂ (FM OSC Trimmer) C ₃₃ (FM Tuning Trimmer)	(*) Adjust for maximum output.
PSB-RF ALIGNMENT					
10) "	140 MHz	140 MHz [Fig. 17]	"	L ₇ (PSB OSC Coil) L ₅ (PSB Tuning Coil)	(*) Adjust for maximum output.
11) "	168 MHz	168 MHz [Fig. 18]	"	C ₄₉ (PSB OSC Trimmer) C ₃₀ (PSB Tuning Trimmer)	(*) Adjust for maximum output.
* Three output responses will be present; proper tuning is the center frequency.					

* Three output responses will be present; proper tuning is the center frequency.

AM

FM

PSB

■ CHASSIS PARTS LOCATIONS

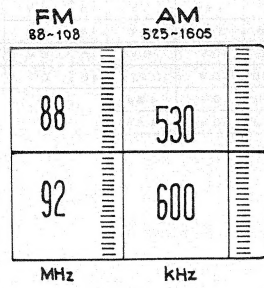


Fig. 13 (550 kHz)

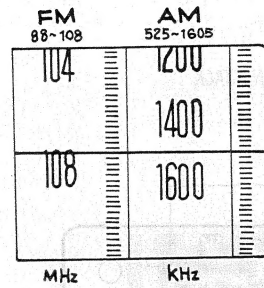


Fig. 14 (1500 kHz)

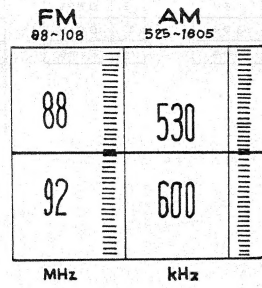


Fig. 15 (90 MHz)

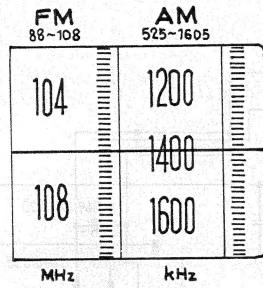


Fig. 16 (106 MHz)

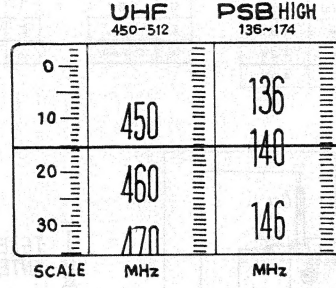


Fig. 17 (140 MHz)

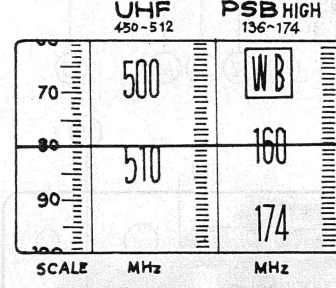


Fig. 18 (168 MHz)

■ CABINET PARTS LOCATION

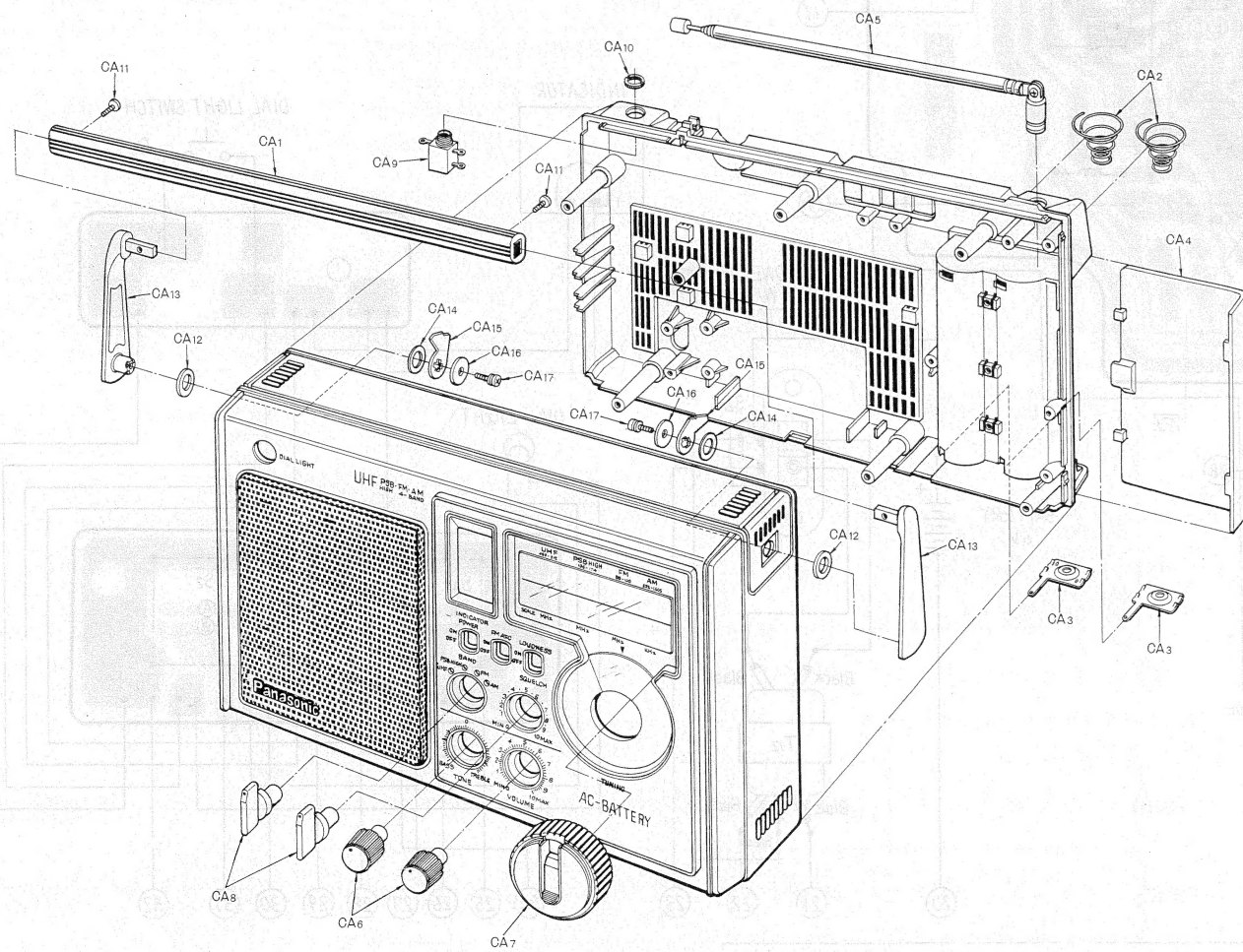


Fig. 19

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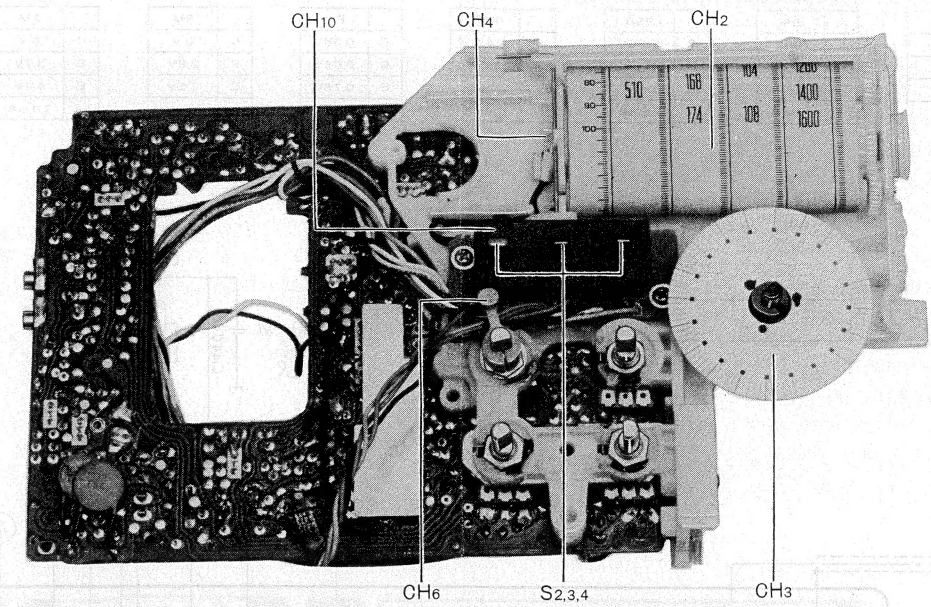


Fig. 20

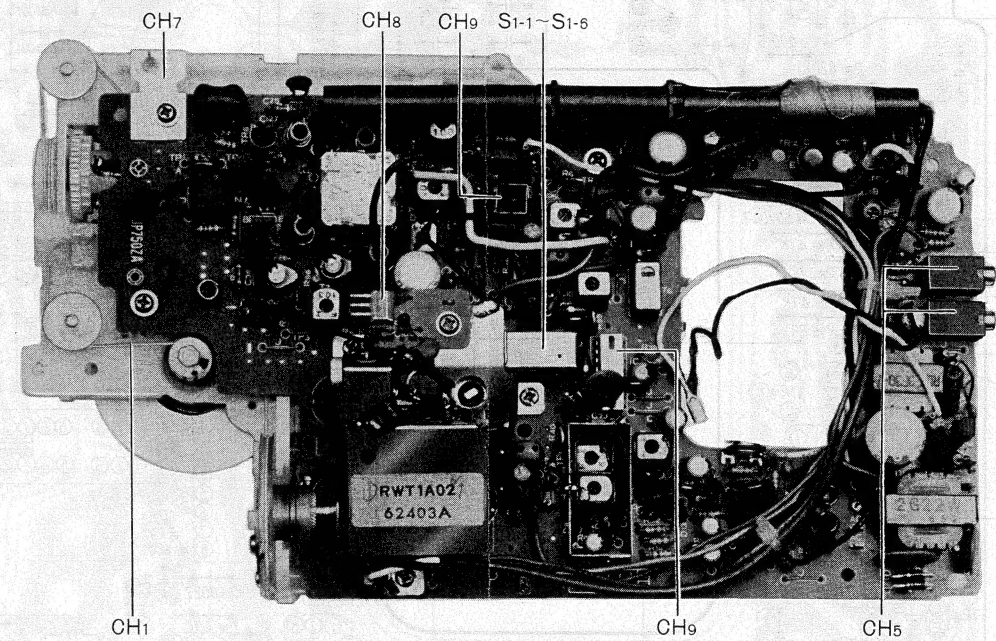
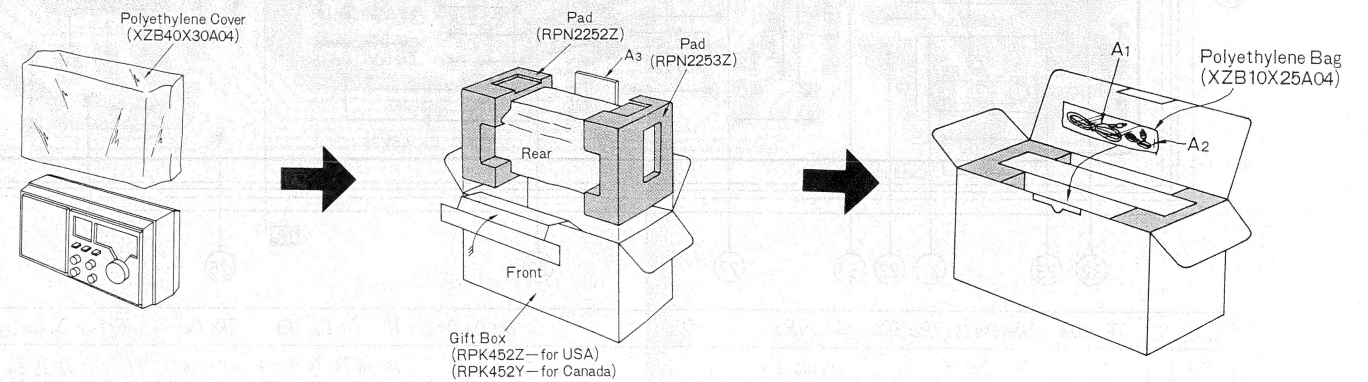


Fig. 21

■ PACKING MATERIALS AND ACCESSORIES



A6

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REPLACEMENT PARTS LIST Model RF-1115 (RD7609-1305)

NOTES: 1.Part numbers are indicated on most mechanical parts.
Please use this part number for parts orders.
2.Components identified by shaded area have special characteristic important for safety. When replacing any of these components use only manufacture's specified parts.
3.Part numbers shown in bold letters are service standard parts and may differ from production parts.
4.The O mark is used by the manufacturing plant only.

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
TUNER				
	RWT1A02	UHF TUNER	1	○
INTEGRATED CIRCUIT, TRANSISTORS AND DIODES				
IC	RVIUPC1018CE	IC, FM/AM IF Amp., AM Converter	1	○
TR3,4,6,7,8	2SA838	Transistor(Ge), UHF IF Amp., PSB RF Amp., FM RF Amp., FM Converter, FM IF Amp.	5	
TR5	2SC1674	Transistor(Si), PSB Converter	1	
TR9,11	2SA564	Transistor(Ge), DC, Squelch Amp.	2	
TR10	2SC828	Transistor(Si), Meter Amp.	1	
TR12,14	2SB173	Transistor(Si), AF Amp.	2	
TR13	2SC945	Transistor(Si), AF Amp.	1	
TR15,16	2SC1383	Transistor(Si), Power Amp.	2	
D2,4,7,10,11,12	OA90	Diode(Ge), PSB AGC, PSB-FM AGC AM Detector & AGC, FM AGC, Rect.	6	
D3	RVDS113	Diode(Si), FM AFC	1	
D5	RVDMZ204C	Diode(Si), Operation Compensator	1	
D6,17	RVDVD1250L	Diode(Si), Operation Compensator, Rectifier	2	
D8,9	2-OA90	Diode(Ge), FM Detector	1Pair	
D13	RVDVD1250M	Diode(Si), Operation Compensator	1	
D14	RVDVD1150M	Diode(Si), Power Operation Compensator	1	
D15,16	RVD10E11F	Diode(Si), Rectifier	2	
CERAMIC FILTERS, COILS AND TRANSFORMERS				
CF1,2	RVF107MFB	Ceramic Filter	2	○
L5	RLD4N35-O	Coil, PSB Tuning	1	
L6	RLD4N30	Coil, FM Tuning	1	
L7	RLO4N92-O	Oscillator Coil, PSB	1	
L8	RLO4N54	Oscillator Coil, FM	1	
L10	RLO2M15-K	Oscillator Coil, AM	1	
L11	RLF2F151-O	Antenna Coil, AM	1	
T1,4,5	RLI4M101	IFT, UHF, PSB & FM	3	
T2,3	RLI4M103	IFT, PSB & FM	2	
T6	RLI7W105-Z	IFT, AM 1st	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
T7	RLI2M402	IFT, AM 2nd	1	
T8	RLI4M504	IFT, FM 2nd(Primary)	1	
T9	RLI4M507	IFT, FM 2nd(Secondary)	1	
T10	RLT3F30-V	Input Transformer, P=1KΩ:S=700Ω	1	
T11	RLT2G22-W	Output Transformer, P=70Ω:S=120Ω	1	
T12	RLT5J311A-W	Power Transformer	1	○
VARIABLE RESISTORS				
R60,73	EVH5XA026B23	2KΩ(B), Squelch & Tone Control	1	○
R67	EVH5XA026D54	50KΩ(D), Volume Control	1	
R59	EVLTOAA00B23	2KΩ(B), Preset, Meter Control	1	
VARIABLE CAPACITORS				
C31,34,48,51,62,63	RCV2X4216TL	Tuning Capacitor, W/Trimmer	1	○
C30,49	ECV1ZW10X32	Capacitor(C33,52,64,65) Trimmer Capacitor	2	
COMPONENT COMBINATIONS				
Z1	RXABPF17402I	Component Combination, Coils & Capacitors	1	
Z2	RXABPF10801H	Component Combination, Coils & Capacitors	1	
Z3	RXAF103P22HD	Component Combination, 0.01μF×2	1	
SPEAKER				
SP	EAS10P57S	Speaker, Imp.16Ω, 10cm(4"), PM Dynamic	1	
SWITCHES				
S1-1~S1-6	RSR4F01Z-H	Switch, Band	1	○
S2,3,4	RSTX001Z-M	Switch, Power, FM AFC & Loudness	1	
RESISTORS				
R6	ERD25TJ470	47Ω, ¼Watt, ±5%, Carbon	1	
R7	ERD25TJ681	680Ω, ¼Watt, ±5%, Carbon	1	
R8	ERD25TJ104	100KΩ, ¼Watt, ±5%, Carbon	1	
R9	ERD25TJ470	47Ω, ¼Watt, ±5%, Carbon	1	
R10	ERD25TJ103	10KΩ, ¼Watt, ±5%, Carbon	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R11	ERD25TJ332	3.3K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R12	ERD25TJ332	3.3K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R13	ERD25TJ102	1K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R14	ERD25TJ102	1K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R15	ERD25TJ331	330 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R16	ERD25TJ471	470 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R17	ERD25TJ470	47 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R18	ERD25TJ470	47 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R19	ERD25TJ152	1.5K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R20	ERD25TJ681	680 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R21	ERD25TJ224	220K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R22	ERD25TJ334	330K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R24	ERD25TJ680	68 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R25	ERD25TJ470	47 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R26	ERD25TJ104	100K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R27	ERD25TJ470	47 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R28	ERD25TJ220	22 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R29	ERD25TJ470	47 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R30	ERD25TJ103	10K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R31	ERD25TJ331	330 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R32	ERD25TJ224	220K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R33	ERD25TJ331	330 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R34	ERD25TJ682	6.8K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R35	ERD25TJ472	4.7K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R36	ERD25TJ150	15 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R37	ERD25TJ470	47 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R38	ERD25TJ103	10K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R39	ERD25TJ122	1.2K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R40	ERD25TJ470	47 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R42	ERD25TJ470	47 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R43	ERD25TJ103	10K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R44	ERD25TJ332	3.3K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R45	ERD25TJ102	1K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R46	ERD25TJ102	1K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R47	ERD25TJ102	1K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R48	ERD25TJ104	100K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R49	ERD25TJ102	1K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R50	ERD25TJ102	1K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R51	ERD25TJ153	15K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R52	ERD25TJ223	22K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R53	ERD25TJ222	2.2K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R54	ERD25TJ154	150K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R55	ERD25TJ222	2.2K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R56	ERD25TJ823	82K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R57	ERD25TJ221	220 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R61	ERD25TJ331	330 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R62	ERD25TJ272	2.7K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R64	ERD25TJ334	330K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R65	ERD25TJ221	220 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R66	ERD25TJ152	1.5K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R68	ERD25TJ103	10K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R69	ERD25TJ223	22K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R70	ERD25TJ824	820K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R71	ERD25TJ222	2.2K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R72	ERD25TJ330	33 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R74	ERD25TJ153	15K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R75	ERD25TJ330	33 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R76	ERD25TJ151	150 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R77	ERD25TJ220	22 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R78	ERD25TJ471	470 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R79	ERD25TJ333	33K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R80	ERX1ANJR47	0.47 Ω , 1Watt, $\pm 5\%$, Metal	1	
R81	ERD25TJ473	47K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R82	ERX2ANJ100	10 Ω , 2Watt, $\pm 5\%$, Metal	1	
R83	ERD25TJ470	47 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R84	ERD25TJ102	1K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R85	ERD25TJ223	22K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R86	ERD25TJ472	4.7K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R87	ERD25TJ681	680 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R88	ERD25TJ823	82K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R89	ERD25TJ122	1.2K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R92	ERD25TJ470	47 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R94	ERD25TJ223	22K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R95	ERD25TJ472	4.7K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R96	ERD25TJ470	47 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R98	ERD25TJ471	470 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R99	ERD25TJ680	68 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R100	ERD25TJ470	47 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R101	ERD25TJ222	2.2K Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R110	ERD25TJ390	39 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	
R111	ERD25TJ100	10 Ω , $\frac{1}{2}$ Watt, $\pm 5\%$, Carbon	1	

CAPACITORS

C19	ECQG05333MZ	0.033 μ F, 50WV, $\pm 20\%$, Polyester	1	
C20	ECKD1H102PF	0.001 μ F, 50WV, $\pm 10\%$, Ceramic	1	
C21	ECKE1H103MD	0.01 μ F, 50WV, $\pm 20\%$, Ceramic	1	
C22	ECKD1H102PF	0.001 μ F, 50WV, $\pm 10\%$, Ceramic	1	
C23	ECKE1H103PF	0.01 μ F, 50WV, $\pm 10\%$, Ceramic	1	
C24	ECKE1H103PF	0.01 μ F, 50WV, $\pm 10\%$, Ceramic	1	
C25	ECKE1H103PF	0.01 μ F, 50WV, $\pm 10\%$, Ceramic	1	
C26	ECKE1H103MD	0.01 μ F, 50WV, $\pm 20\%$, Ceramic	1	
C27	ECKE1H102MD	0.001 μ F, 50WV, $\pm 20\%$, Ceramic	1	
C28	ECKD1H102PF	0.001 μ F, 50WV, $\pm 10\%$, Ceramic	1	
C29	ECKD1H102PF	0.001 μ F, 50WV, $\pm 10\%$, Ceramic	1	
C32	ECCD1H100KC	10PF, 50WV, $\pm 10\%$, Ceramic	1	
C35	ECCD1H180KC	18PF, 50WV, $\pm 10\%$, Ceramic	1	
C36	ECCD1H040C	4PF, 50WV, ± 0.25 PF, Ceramic	1	
C37	ECCD1H3R5C	3.5PF, 50WV, ± 0.25 PF, Ceramic	1	
C38	ECKE1H103PF	0.01 μ F, 50WV, $\pm 10\%$, Ceramic	1	
C39	ECKE1H103PF	0.01 μ F, 50WV, $\pm 10\%$, Ceramic	1	
C40	ECCD1H220KC	22PF, 50WV, $\pm 10\%$, Ceramic	1	
C41	ECCD1H330KC	33PF, 50WV, $\pm 10\%$, Ceramic	1	
C42	ECCD1H050CC	5PF, 50WV, ± 0.25 PF, Ceramic	1	
C43	ECKE1H223PF	0.022 μ F, 50WV, $\pm 10\%$, Ceramic	1	
C44	ECCD1H070DC	7PF, 50WV, ± 0.5 PF, Ceramic	1	
C45	ECKE1H103PF	0.01 μ F, 50WV, $\pm 10\%$, Ceramic	1	
C46	ECCD1H120KC	12PF, 50WV, $\pm 10\%$, Ceramic	1	
C50	ECCD1H030C	3PF, 50WV, ± 0.25 PF, Ceramic	1	
C54	ECKD1H102PF	0.001 μ F, 50WV, $\pm 10\%$, Ceramic	1	
C55	ECKD1H102PF	0.001 μ F, 50WV, $\pm 10\%$, Ceramic	1	
C56	ECEA10V1000	1000 μ F, 10WV, Electrolytic	1	

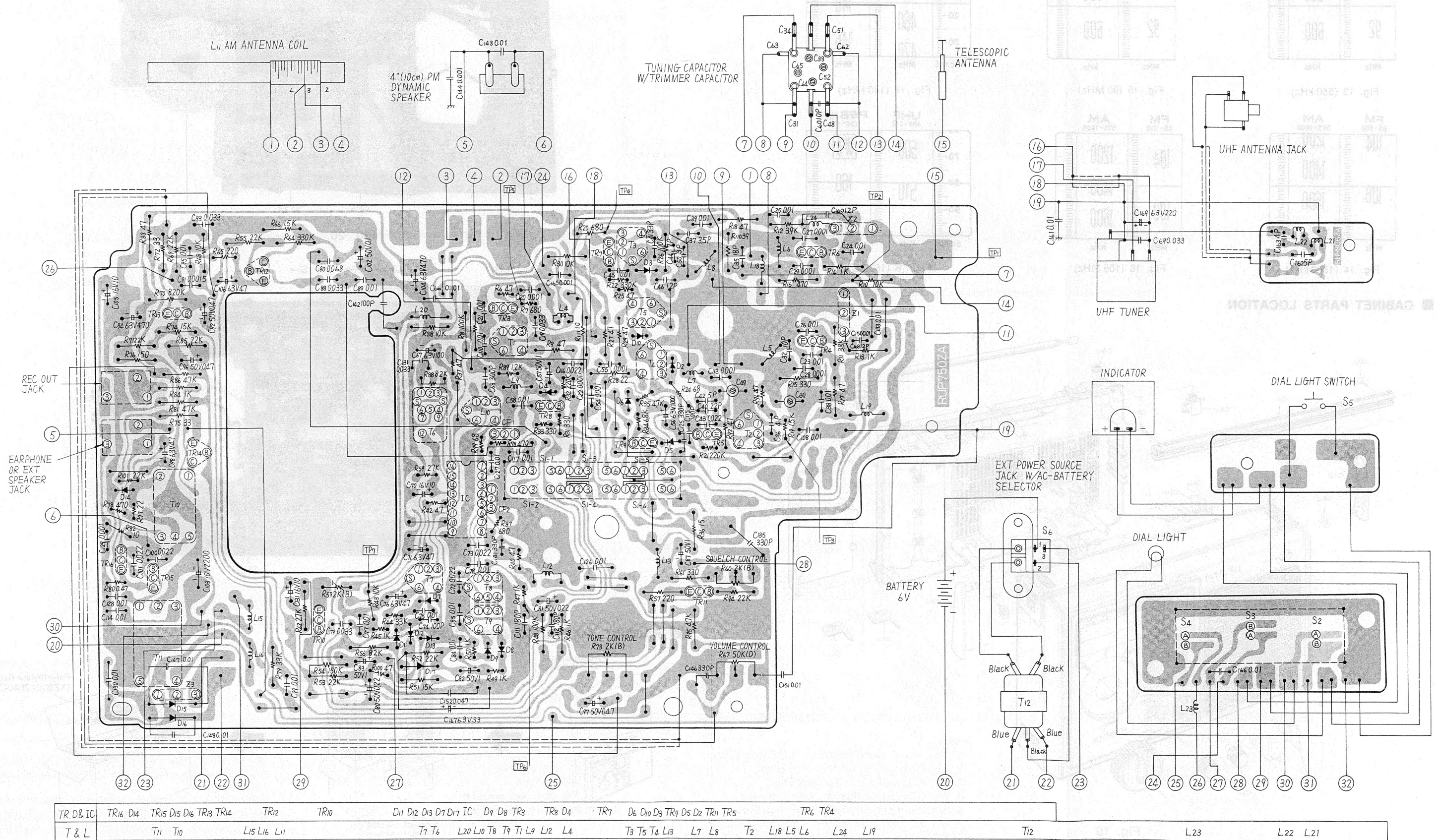
Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
C57	ECEA50V1B	1μF, 50WV, Electrolytic	1	
C58	ECKT1H103MD	0.01μF, 50WV,±20%, Ceramic	1	
C60	ECCD1H100KC	10PF, 50WV,±10%, Ceramic	1	
C66	ECKT1H103MD	0.01μF, 50WV,±20%, Ceramic	1	
C67	ECEA10V100	100μF, 10WV, Electrolytic	1	
C68	ECQS1301JZ	300PF, 125WV,±5%, Styrol	1	
C69	ECQG05333MZ	0.033μF, 50WV,±20%, Polyester	1	
C70	ECEA16V10B	10μF, 16WV, Electrolytic	1	
C71	ECEA6V47B	47μF, 6.3WV, Electrolytic	1	
C72	ECKE1H223MD	0.022μF, 50WV,±20%, Ceramic	1	
C73	ECKE1H223MD	0.022μF, 50WV,±20%, Ceramic	1	
C74	ECCD1H101K	100PF, 50WV,±10%, Ceramic	1	
C75	ECKE1H103MD	0.01μF, 50WV,±20%, Ceramic	1	
C76	ECEA6V47B	47μF, 6.3WV, Electrolytic	1	
C77	ECKT1H103MD	0.01μF, 50WV,±20%, Ceramic	1	
C78	ECKE1H103MD	0.01μF, 50WV,±20%, Ceramic	1	
C79	ECFVD333MDY	0.033μF, 25WV,±20%, Semi-Conductor	1	
C80	ECEA50ZR22	0.22μF, 50WV, Electrolytic	1	
C81	ECEA50ZR22	0.22μF, 50WV, Electrolytic	1	
C82	ECEA50V1B	1μF, 50WV, Electrolytic	1	
C83	ECEA50V1	1μF, 50WV, Electrolytic	1	
C84	ECKE1H103MD	0.01μF, 50WV,±20%, Ceramic	1	
C85	ECKE1H103MD	0.01μF, 50WV,±20%, Ceramic	1	
C87	ECEA50V1B	1μF, 50WV, Electrolytic	1	
C88	ECFTD333MDY	0.033μF, 25WV,±20%, Semi-Conductor	1	
C89	ECKE1H103MD	0.01μF, 50WV,±20%, Ceramic	1	
C90	ECKE1H682MD	0.0068μF, 50WV,±20%, Ceramic	1	
C91	ECKE1H152MD	0.0015μF, 50WV,±20%, Ceramic	1	
C92	ECEA50ZR47B	0.47μF, 50WV, Electrolytic	1	
C93	ECFVD333MDY	0.033μF, 25WV,±20%, Semi-Conductor	1	
C94	ECEA6V470	470μF, 6.3WV, Electrolytic	1	
C95	ECKT1H103MD	0.01μF, 50WV,±20%, Ceramic	1	
C96	ECEA50ZR47	0.47μF, 50WV, Electrolytic	1	
C97	ECEA50ZR47B	0.47μF, 50WV, Electrolytic	1	
C98	ECEA6V47B	47μF, 6.3WV, Electrolytic	1	
C99	ECKT1H103MD	0.01μF, 50WV,±20%, Ceramic	1	
C100	ECFTD223MDY	0.022μF, 25WV,±20%, Semi-Conductor	1	
C101	ECFVD223MDY	0.022μF, 25WV,±20%, Semi-Conductor	1	
C102	ECEA50ZR1B	0.1μF, 50WV, Electrolytic	1	
C103	ECEA10V2200	2200μF, 10WV, Electrolytic	1	
C104	ECEA6V470	470μF, 6.3WV, Electrolytic	1	
C105	ECEA16V10	10μF, 16WV, Electrolytic	1	
C106	ECEA6V47B	47μF, 6.3WV, Electrolytic	1	
C108	ECKE1H103PF	0.01μF, 50WV,±10%, Ceramic	1	
C110	ECKE1H103MD	0.01μF, 50WV,±20%, Ceramic	1	
C111	ECCT1H181K	180PF, 50WV,±10%, Ceramic	1	
C112	ECCD1H181K	180PF, 50WV,±10%, Ceramic	1	
C113	ECKD1H102MDA	0.001μF, 50WV,±20%, Ceramic	1	
C114	ECFVD103MDY	0.01μF, 25WV,±20%, Semi-Conductor	1	
C115	ECCD1H101K	100PF, 50WV,±10%, Ceramic	1	
C116	ECKE1H223MD	0.022μF, 50WV,±20%, Ceramic	1	
C117	ECKT1H103MD	0.01μF, 50WV,±20%, Ceramic	1	
C125	ECCD1H331K	330PF, 50WV,±10%, Ceramic	1	
C126	ECKE1H103MD	0.01μF, 50WV,±20%, Ceramic	1	
C127	ECKE1H103PF	0.01μF, 50WV,±10%, Ceramic	1	
C128	ECFVD103MDY	0.01μF, 25WV,±20%, Semi-Conductor	1	
C129	ECKD1H102PF	0.001μF, 50WV,±10%, Ceramic	1	

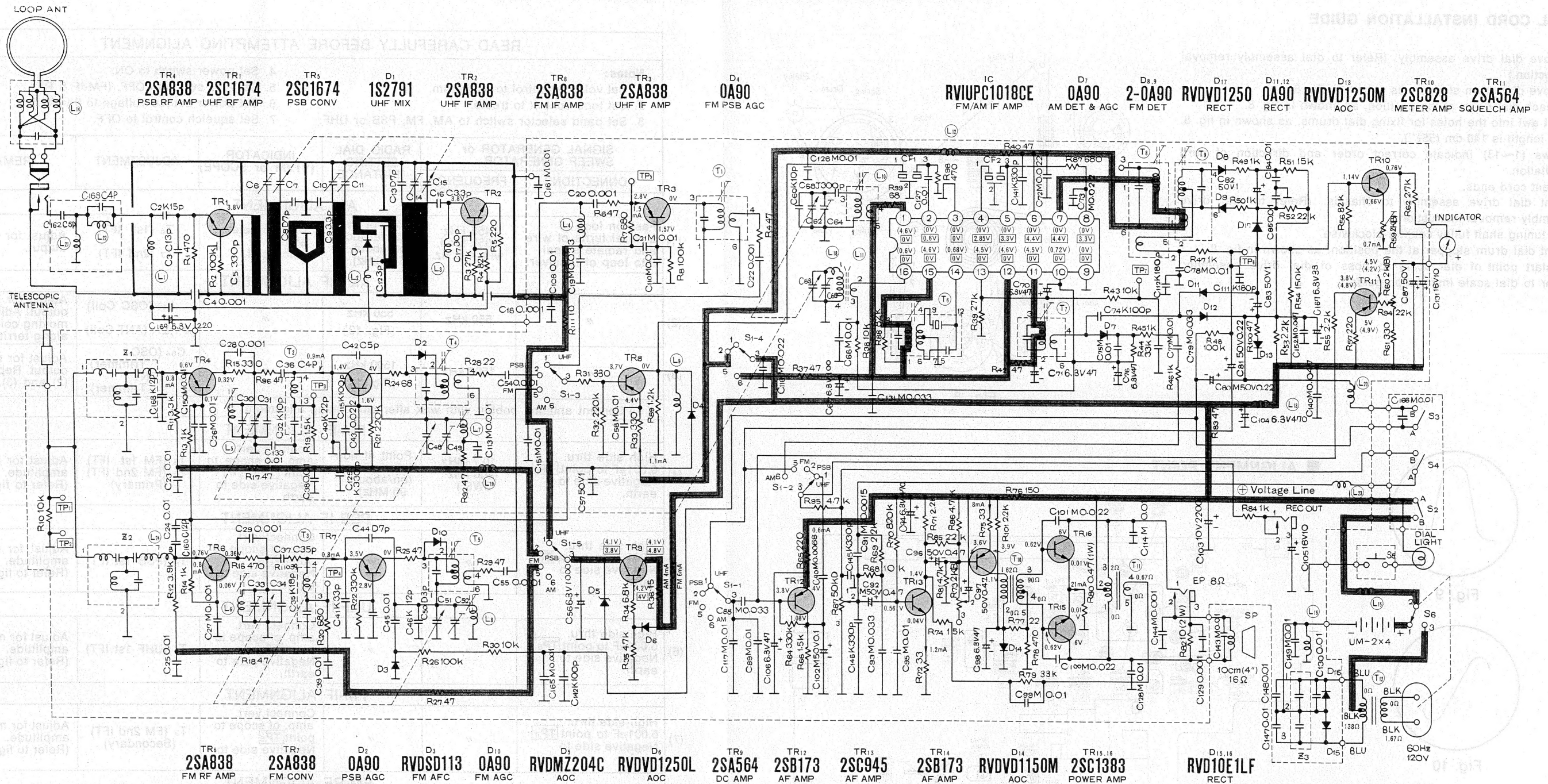
Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
C130	ECKD2H103PE	0.01μF, 100WV,±10%, Ceramic	1	
C131	ECEA16V10	10μF, 16WV, Electrolytic	1	
C133	ECKE1H103MD	0.01μF, 50WV,±20%, Ceramic	1	
C135	ECCD1H331K	330PF, 50WV,±10%, Ceramic	1	
C140	ECQG05473MZ	0.047μF, 50WV,±20%, Polyester	1	
C141	ECCD1H331K	330PF, 50WV,±10%, Ceramic	1	
C142	ECCD1H101K	100PF, 50WV,±10%, Ceramic	1	
C143	ECCD1H103MD	0.01PF, 50WV,±10%, Ceramic	1	
C144	ECKE1H102MD	0.001μF, 50WV,±20%, Ceramic	1	
C145	ECCD1H331K	330PF, 50WV,±10%, Ceramic	1	
C146	ECCD1H331K	330PF, 50WV,±10%, Ceramic	1	
C147	ECKD2H103PE	0.01μF, 100WV,±10%, Ceramic	1	
C148	ECKD2H103PE	0.01μF, 100WV,±10%, Ceramic	1	
C149	ECKE1H103MD	0.01μF, 50WV,±20%, Ceramic	1	
C150	ECKE1H103MD	0.01μF, 50WV,±20%, Ceramic	1	
C151	ECKE1H103MD	0.01μF, 50WV,±20%, Ceramic	1	
C152	ECQG05473MZ	0.047μF, 50WV,±20%, Polyester	1	
C160	ECCD1H120KC	12PF, 50WV,±10%, Ceramic	1	
C161	ECKE1H103MD	0.01μF, 50WV,±20%, Ceramic	1	
C162	ECCD1H050CC	5PF, 50WV,±0.25PF,Ceramic	1	
C163	ECCD1H040C	4PF, 50WV,±0.25PF,Ceramic	1	
C165	ECKD1H102MDA	0.001μF, 50WV,±20%, Ceramic	1	
C166	ECKE1H103MD	0.01μF, 50WV,±20%, Ceramic	1	
C167	ECEA16V33	33μF, 16WV, Electrolytic	1	
C168	ECCD1H120KC	12PF, 50WV,±10%, Ceramic	1	
C169	ECEA6V220	220μF, 6.3WV, Electrolytic	1	
CABINET				
CA1	RYMF1115M	Cabinet Assembly	1	○
	RKX118Z	Handle	1	○
	RYFF1115M	Cabinet Back Cover Assembly	1	○
	RJC603Z	Terminal Spring, Battery ⊖ Side	2	
	RJC205B	Terminal, Battery ⊕ Side	2	
CA4	RKK112Z	Cover, Battery Compartment	1	○
CA5	XEARR174GDSN	Telescopic Antenna, 7 Steps, 1080mm	1	○
CA6	RBN358Z	Knob, Tone & Volume	2	○
CA7	RBN359Z	Knob, Tuning	1	○
CA8	RBS106Z	Knob, Band & Squelch	2	○
CA9	XTB3+45BFN	Screw, Cabinet Back Cover M'tg	6	
	RJJ10C	Jack, Loop Antenna	1	
CHASSIS				
CH1	RYDF1115M	Dial Assembly	1	○
CH2	RDZ051-1	Cord(500m), Dial	1Roll	
	RKD403Y	Scale, Dial	1	○
CH3	RDS4062Z	Spring, Dial	1	
	RXEF1115M	Indicating Plate Assembly	1	○
CH4	XAMR57S150	Pilot Lamp, Dial	1	
	RSM2612Z-K	Meter, Tune & Batt.	1	○
CH5	RJJ29Z-H	Jack, AC IN	1	
	RJJ87Y-C	Jack, Earphone & Rec. Out	2	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
CH6	RUV321Y	Cover, AC Jack	1	○
	XSN26+6	Screw, Tuning Capacitor	2	
	XYN26+C5	Screw, Tuner M'tg	3	
	RGX769Z	Indicator, Band	1	
ACCESSORIES				
A1	RJA22A	Power Cord, AC (For U.S.A.)	1	○
A1	RJA22B	Power Cord, AC (For Canada)	1	
A2	XEH1A1-P	Magnetic Earphone	1	
	RSA904Z	UHF Antenna	1	
	UM-2DE-(P)	Battery	4	
A3	RQX6023Z	Instruction Book, For U.S.A.	1	
A3	RQX6024Z	Instruction Book, For Canada	1	

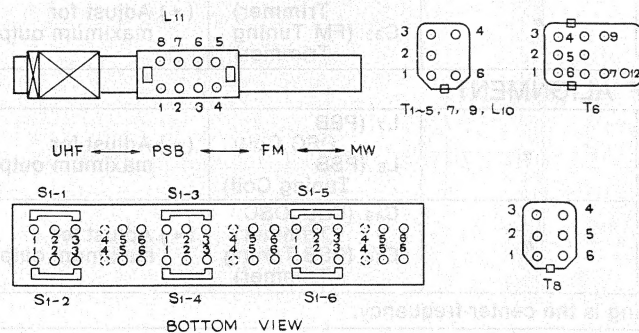
Circuit Board Wiring View-Model RF-1115

TR ₁	TR ₂	TR ₃	TR ₄	TR ₅	TR ₆	TR ₇	TR ₈	TR ₉	TR ₁₀	TR ₁₁	TR ₁₂	TR ₁₃	TR ₁₄	TR _{15,16}	IC
UHF	UHF	UHF	PSB	PSB	FM	FM	FM	FM	FM	FM	FM	FM	FM	FM	FM
C 3.8V	C 3.8V	C 0V	C 0.32V	C 4V	C 0.36V	C 0V	C 0V	C 3.8V 4.1V	C 0.76V	SQUELCH	C 1.08V	C 1.4V	C 1.1V	C 6V	FM
B ---	B ---	B 1.57V	B 0.1V	B 1.6V	B 0.06V	B 2.8V	B 3.7V	B 4V 4.2V	B 1.14V	Normal	B 3.8V	B 0.56V	B 3.6V	B 0.62V	AM
E ---	E ---	E 2.8V	E 0.6V	E 1.4V	E 0.76V	E 3.5V	E 4.4V	E 4.8V 4.1V	E 0.66V	Max	E 4V	E 0.04V	E 3.9V	E 0.01V	FM
		Ie 1.5mA	Ie 0.8mA	Ie 0.9mA	Ie 0.8mA	Ie 0.8mA	Ie 1.1mA	Ie 6mA 4mA	Ie 0.7mA		Ie 0.6mA	Ie 1.2mA	Ie 8mA	Ie 21mA	AM





C	163	1	162	2	69	3	150	4	5	133	6	7	125	8	9	10	11	12	115	13	14	15	16	17	18	161	151	165	108	19	20	21	110	126	22	116	60	62	63	64	65	66	67	68	127	70	71	141	72	73	74	75	76	77	78	79	112	80	81	111	82	83	84	85	140	87	131																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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Notes:

1. S1-1~S1-6: Band switch in "UHF" position.
2. S2: Power switch in "OFF" position.
3. S3: AFC switch in "ON" position.
4. S4: Loudness switch in "OFF" position.
5. S5: Dial light switch in "OFF" position.
6. S6: AC-battery selector in "Battery" position.
7. DC voltage measurements are taken with circuit tester 10kΩ/V from negative terminal of battery.

- TR1, 2, 3.....UHF position TR4, 5.....PSB position
 TR6, 7, 8.....FM position ☐.....FM position
 ().....AM position
 < >.....Squelch max position
 8. Battery current: No signal 50mA
 Maximum output 650mA

IMPORTANT SAFETY NOTICE

THE SHADED AREA ON THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR SAFETY.
 WHEN SERVICING IT IS ESSENTIAL THAT ONLY MANUFACTURER'S SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SHADED AREAS OF THE SCHEMATIC.

Fiche Nr. 1223

Nach DIN 19054 (International, NMA-Standard)
 98 Nutzenseiten DIN A4 (49 Nutzenseiten DIN A3)

Datum 23. JULI 1981

Inhalt Model RF-1115 C

Verfilmungsplan

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Kopfzeile

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Breite der Kopfzeile.....

Farbe der Kopfzeile.....

Inhalt der Kopfzeile.....

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A 2=.....	C 7=.....	E12=.....
A 3=.....	C 8=.....	E13=.....
A 4=.....	C 9=.....	E14=.....
A 5=.....	C10=.....	F 1=.....
A 6=.....	C11=.....	F 2=.....
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A 8=.....	C13=.....	F 4=.....
A 9=.....	C14=.....	F 5=.....
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C 2=.....	E 7=.....	G12=.....
C 3=.....	E 8=.....	G13=.....
C 4=.....	E 9=.....	G14=.....
C 5=.....	E10=.....	

english

I N D E X - I.

deutsch

M O D E L R F - 1 1 1 5 (C).

M O D E L L R F - 1 1 1 5 (C).

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Dial scale installation guide.	A 2	Rundskalaeinstellung.
Dial cord installation guide.	A 3	Skalenbandeinstellung.
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<u>Replacement parts list.</u>		<u>Ersatzteile-Liste.</u>
Tuner.	A 7- A 8	Tuner.
I.C.s, Transistors, Diodes, Filters, Coils, Transformers, Variable Resistors, Speaker, Variable Capacitors, Switches, Component Combinations.		Integrierte Schaltungen, Transistoren, Dioden, Filter, Spulen, Trafos, Potentiometer, Lautsprecher, Drehkondensatoren, Schalter, Kombinierte Teile.
Resistors.	A 8- A10	Widerstände.
Capacitors.	A10- A12	Kondensatoren.
Cabinet and Chassis parts.	A12- A13	Gehäuseteile und Bauelemente.
Accessories.		Zubehör.

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